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ABSTRACT

This cooperative study was conducted by seven southern states to compare educational and vocational goals of 938 urban youths from various backgrounds, along with corresponding parental goals for these children. The factors investigated were sex, level of living, family size, and rural or nonrural background. The study found that: (1) Boys and girls had different goals, (2) Low level of living was associated with low aspirations, (3) Rural-urban differences existed in expectations, (4) Family size was inversely related to expectations, and (5) There were discrepancies in aspirations between parents and children. (BH)

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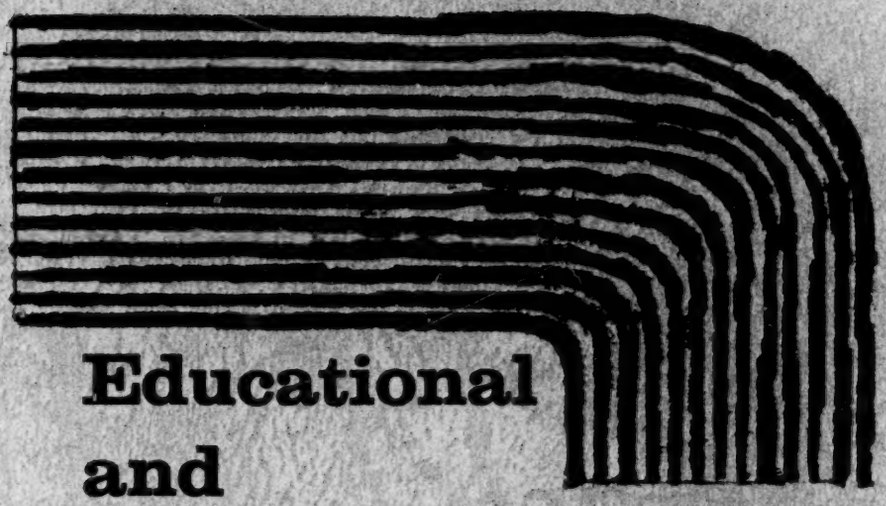

Educational and Vocational Goals of Urban Youth in the South

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Educational and Vocational Goals of Urban Youth in the South

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Southern Cooperative Series
August 1968

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Educational and Vocational Goals of Urban Youth in the South

Introduction

There is a continuing migration of the rural-born to urban areas where employment opportunities are more varied and numerous. The degree of vocational success and satisfaction that these migrants achieve depends largely on their education and training, but is strongly influenced by their ambitions. Some values developed in rural areas may poorly equip youth for life in urban areas where most of them will spend all or part of their adult lives. Therefore, rural-born migrants living in urban communities are over-represented in low status, low income occupations.

Migrations of people occur generally between the ages of 18 and 24, and after they have either discontinued or completed secondary school. By this time, vocational possibilities already have been determined by the amount and kind of education that has been acquired. If the parents and child migrate when the child is in his early teens or younger, what is the outcome? Do values related to rural residence persist, or are they weakened by life in an urban milieu? Do the educational and vocational attitudes of parents with a rural background become similar to those of parents with urban backgrounds? Answers to these questions will be of value to urban school personnel and to parent educators.

Objectives

The objectives of this cooperative study conducted by Alabama, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia were: (1) to investigate and compare educational and vocational goals of urban youth from rural and nonrural backgrounds, and corresponding parental goals for these children; and (2) to investigate other factors that could be associated with similarities and differences in these goals.

The other factors investigated were: (a) sex of child, (b) level of living, and (c) family size. For the purpose of this study, rural background refers to persons having lived with both parents on a farm or in open country for at least one year; urban youth, to those living in a city with a population of 40,000 or more.

Procedure

Each state conducted its own enumeration, following as closely as possible the sample selection and measurement procedures established by the technical committee for the regional project. The interviewers'

procedures manual was adapted from an earlier study (Southern Cooperative Series, 1965). Since greatest precision was required for group comparisons, particularly by rural-nonrural backgrounds, survey plans called for six subjects from each state to fall in each of 24 subgroups. These groups were formed by cross-classification of the two sexes, three levels of living, two family sizes, and two backgrounds. The sample was thus equipartitioned rather than proportionally representative and was to have 1,008 cases. Actually 928 cases appear in the region tables.

For level of living (hereafter referred to as LOL) a ranking of high, middle, and low was made according to answers received on an adaptation of the Home Index Scale by Gough (1949) (appendix A). In this study a small family was defined as one having one or two children; a large family as one having three or more children. Rural background refers to persons having lived with both parents on a farm or in open country for at least one year; nonrural background refers to those never having lived in the country or having lived there less than a year.

The sample was close to proportionally representative by sex and by LOL which are about equipartitioned in the population. It was almost proportionally representative by family size in that there were about twice as many information sheets from children of large families than children from small families (table 1). However, by rural-nonrural background the sample is quite nonrepresentative in that there were about equal numbers. Among the information sheets administered there was a range in the ratio of nonrural to rural background children. Alabama, for example, had three nonrural to eight rural background children while Virginia had an 8:1 ratio of nonrural to rural background children.

The ten schools in each state from which sample students were to be drawn were selected by simple random sampling from all of the predominantly white public schools teaching ninth and tenth grades and serving cities with population of 40,000 or more. Where it was not possible to administer instruments in the classrooms, names of students were drawn randomly from lists of ninth and tenth graders furnished by school personnel. Area sampling was also used to locate students in a house-to-house survey following block tract procedure, as directed by the regional statistician. Students from these schools were interviewed in their homes, generally at the same time as their parents.

Instruments administered to all subjects were: Hieronymous' Scale of Attitudes Toward Education (appendix B), a questionnaire for measurement of educational and vocational plans (appendix C), and the Kuder Preference Record, Vocational Form C (Kuder, 1960).

Interviews with parents were made in their homes. These included an introduction to the study and parental background information (appendix D), and administration of questionnaires similar to those

Table 1. Numbers of Information Sheets for Eligible Students and Numbers of Completed Cases by Subgroups

Subgroup							
Sex	LOL	Size	Back.	Code	Regional Sample	Three States* Information Sheets	Virginia** Information Sheets
Boys	High	Small	R	111	33	25	15
Boys	High	Small	NR	1121	44	172	268
Boys	High	Large	R	1112	37	55	49
Boys	High	Large	NR	1122	40	338	376
Boys	Med.	Small	R	1211	33	60	38
Boys	Med.	Small	NR	1221	44	335	353
Boys	Med.	Large	R	1212	35	118	87
Boys	Med.	Large	NR	1222	45	506	537
Boys	Low	Small	R	1311	36	55	21
Boys	Low	Small	NR	1321	34	231	165
Boys	Low	Large	R	1312	40	224	79
Boys	Low	Large	NR	1322	40	694	335
Girls	High	Small	R	2111	35	28	20
Girls	High	Small	NR	2121	43	269	283
Girls	High	Large	R	2112	38	54	41
Girls	High	Large	NR	2122	43	367	452
Girls	Med.	Small	R	2211	38	36	28
Girls	Med.	Small	NR	2221	45	318	351
Girls	Med.	Large	R	2212	37	116	68
Girls	Med.	Large	NR	2222	39	536	584
Girls	Low	Small	R	2311	35	34	12
Girls	Low	Small	NR	2321	40	226	114
Girls	Low	Large	R	2312	37	255	73
Girls	Low	Large	NR	2322	37	588	357
		TOTALS			928	5,640	4,706

*These States are: Alabama, South Carolina and Tennessee.
**Virginia counts are shown separately since this was the only state where no area sample had to be taken.

answered by the students. Parents were asked to answer the Hieronymous' Scale of Attitudes Toward Education (appendix B) and Kuder Preference Record (Kuder, 1960) as they hoped their children had answered them, and to fill out questionnaires (appendix C) regarding their plans and hopes for their children's education and vocation.

Data were collected over the school years 1964-65 and 1965-66. Tabulation began for some states in the spring of 1966, while the regional tables were run in December of 1966. Eligible students constituted about 75 percent to 80 percent of all students filling out information sheets. All students filling out information sheets were probably near 99 percent of all available students, while the in-school population was about 95 percent of all children in the around 14-year-old age group. Designating a student for interview did not always result in collecting the data. The student might not, in fact, have had both parents living at home, or the family might have moved away, or parents might have refused to be interviewed. As may be seen, mobile families were less likely to be included than were stable families. It would appear that nonresponse rates were not more than 20 percent in any of the states.

The sampling plan without area sampling and using only the information sheets insured that every eligible student within a given subgroup of the 24 had the same chance of being in the sample as any other one in that subgroup. Of course, the sampling rates would differ from group to group because of the differences in total number available in the 24 classification types (table 1). With the use of area sampling this feature of the design was lost. Students were interviewed in the area samples regardless of subgroup until the number interviewed was equal to the number that would otherwise have been drawn from that school or until a student's subgroup already contained six or more cases. This means that, by and large, the more common types (table 1) came from the area-sampled schools in the cities.

Statistical Analysis

Analysis of variance was used to determine differences among means on Hieronymous Attitude Toward Education Questionnaire scores and *Kuder Preference Record* scores for four main variables investigated in this study. The form of analysis was that of unweighted means. The 24 means for the classification types were treated as a four-way analysis of variance with one observation per cell. The error mean square was estimated from the within-cell variation.

The questionnaire items on educational and vocational goals were not quantitative, and the analysis of variance computations were not directly applicable. Thus, instead of sums of squares, chi-square quantities were employed. Four main effect chi-square values were computed, then the six first-order interaction chi-square quantities

were computed and on to higher orders. These so-called interaction chi-square quantities are not claimed to give more than a rough indication of lack of balance in the tabulations. These chi-squares served to screen an otherwise unmanageable number of cross tabulations. Only associations which were significant at the 5 percent level or better are discussed in this bulletin.

Parent-child responses were compared by subtracting the youths' scores from the parents' scores on the Hieronymous and Kuder and by matching to give the extent and direction of agreement on the questionnaire items for educational and vocational plans. These comparisons gave rise to two more series of dependent variables—one for father and one for mother. Again the chi-square quantities and analysis of variance were employed to detect significant differences for the four independent variables.

Kendall's tau coefficient (Kendall, 1962) was used to test further the effect of the background variable. Many of the items on the vocational questionnaire had ordered response categories. For example, the response categories to the financial help items ranged from "all" or "completely" to "none." In this case, one may be especially interested in detecting patterned departures from the balanced or no-association situation prescribed by the null hypothesis. The chi-square test statistic is not as sensitive for this as would be, for example, a test based on Kendall's tau coefficient.

Review of Literature

Concern for the future of youth and even for the nation itself is focused on the need for an educated and highly skilled citizenry in the modern, complex, and dynamic world. Such concern is intensified by the fact that ever-increasing educational levels are demanded for present-day employment opportunities. Studies comparing parents' aspirations for their children with goals held by youth themselves are reported. There is also a review of available findings on the relation of vocational and educational aspirations and the four independent variables in the present study: sex, level of living (LOL), rural-urban residence, and family size.

Aspirations of Youth and Their Parents

Super (1957) concluded from numerous studies that children identify with their parents and their subculture and begin to develop preferences for the types of occupations which their parents value. Kahl (1953) and Steinke and Kaczkowski (1960) found that the parents' occupational preferences for their children are important influences upon the students' occupational choices and educational plans.

A further aspect of parental influence has been shown by researchers who have compared differences between fathers and mothers. Burchinal and Jacobson (1963) found that more mothers than fathers showed an

interest in their children's education. Lee and King (1964) concluded that mothers have a greater influence on the level of occupational choice of girls than do fathers. Hill and Hole (1958) found mothers estimated their children's interest slightly better than fathers and that fathers and mothers agreed a little better with each other than with their children. Findings in a regional study on Southern rural youth (Southern Cooperative Series, 1965) indicated that 57 percent of parent and youth's expectations for further schooling were in agreement.

The study of Southern rural youth (Southern Cooperative Series, 1965) analyzed the nature of the disagreement reported by 43 percent of their parent-youth cases thus: the direction of the disagreement varied, and disagreement between youth and parents was more pronounced in the higher level of living group. Frequent disagreement was evident between mothers and daughters in the high level of living group with girls reporting considerably greater educational expectations than their mothers reported. Youth-parent disagreement regarding non-college plans was more frequent among low LOL families than others.

Sex Differences in Educational and Vocational Plans

There is a great deal of agreement shown in findings of recent studies indicating that educational and vocational goals of boys differ from those of girls. Slocum and Empey (1956) found that more boys than girls expected to attend college, that more girls than boys planned training beyond high school at below-college level (i.e., trade schools, business schools), and that fewer girls than boys were undecided about their future education. Education for its own sake rather than as occupational and vocational preparation was sought by more girls than boys. Lindstrom (1964) and Schwarzweller (1960) agreed that more boys than girls attended college. The difference found by Slocum for reasons held by boys and those held by girls for attending college was also found by Douvan and Kaye (1962). In attending college, more boys had concrete vocational goals; therefore, they selected vocational courses while more girls viewed college as an end in itself and chose general cultural courses.

The Kuder Preference Record (Kuder, 1960) used frequently by vocational counselors in high schools reveals definite sex differences in interest areas. In this questionnaire, based on responses of 3,418 boys and 4,466 girls distributed throughout the United States, higher interests in outdoor, scientific, and mechanical pursuits are generally expressed by boys than by girls. Higher interests in musical, social service, and clerical pursuits are generally expressed by girls.

Many occupations which tradition ascribes to women are those practices performed by the "ideal" mother, such as nursing and

teaching. Studies by Mathews and Drabick (1965) and by Fleege (1964) reveal that such values have been accepted by girls.

In a regional study among rural high school students, Bishop, Davis, Harper, and Payne (1964), Sperry and Kivett (1964), and other Southern regional researchers (Southern Cooperative Series, 1965) found no significant difference between the number of boys and number of girls planning college attendance. This may indicate that the boy-girl difference in educational and vocational goals are fewer now than in the past.

Level of Living

A variety of measures have been utilized to measure level of living (LOL) and socioeconomic status. A level of living measure depends to greater extent on ownership of articles of consumption than a measure of socioeconomic status. The most pertinent research relating to either socioeconomic status or level of living are reviewed here.

Previous research by Hollingshead (1949) has indicated a direct relationship between level of living and both educational and vocational aspirations of youth. The hypothesis that the absolute occupational status aspirations of male high school students from the middle and upper classes were significantly higher than those of students from the lower classes was supported by the following research: Burchinal (1961), Parsons and Bales (1955), Caro and Pihlblad (1965), Empey (1956), Southern Cooperative Series (1965), and Sperry and Kivett (1964).

Previous research has shown larger percentages of high than of low socioeconomic status youth have continued their formal education in Pennsylvania (Bell, 1963), New Jersey (Dipboye and Anderson, 1959), Washington (Douvan and Kaye, 1962), Indiana (Burchinal and Jacobson, 1963), and in Utah (Burchinal, 1961). Socioeconomic status of the family was found to be particularly influential for boys in Kentucky (Mathews and Drabick, 1965). In two South Appalachian studies, the general economic level of the whole community in which youth grew up was notably significant in their decisions regarding education (Elder, 1963; Montesano and Geist, 1964). Four states in the Southern Appalachian region reported the following findings in a study of rural youth:

> *A greater value was placed upon an education by youth from a high or middle level of living background rather than those from a low level of living background. Youths' educational expectations increased in relation to level of living background; a college diploma was envisioned almost twice as frequently by boys and girls from a high level of living background, and four times as among youth from a low level of living background* [*Southern Cooperative Series, 1965, p. 24*].

Differences between aspirations and actual plans of youth have been investigated. Slocum and Empey (1956) obtained results which indicated that lower class mill children had relatively high aspirations and expectations, thus sharing in the American dream of achievement. However, Morland (1960) noted that the mill village setting mitigates against fulfilling the dream. Similarly, Turner (1962) found high ambitions associated with high level of the breadwinner's education and occupation.

A study by Tillery and Donovan (1966) suggested that the father's occupation is one of the most reliable measures in distinguishing students who go to college from those who don't go.

Rural-Urban Residence

Studies of urban youth and rural youth are difficult to summarize because different definitions of rural and urban residence have been used. Some studies have compared farm youth with nonfarm youth, but few investigators have compared aspirations of rural youth with those of urban youth. Burchinal (1961) observed the lowest level of educational and occupational aspirations among farm boys and the highest level among metropolitan boys. Sewell (1964), studying the aspirations of farm, village and urban youth, found urban youth had the highest aspirations of the three groups. Slocum (1958) and Berdie and Hood (1963) also found a greater percentage of youth from urban areas than from rural areas who planned to attend college.

Grigg and Middleton (1960) found a positive association between the size of community of orientation and occupational aspirations for males but not for females. Lipset (1959), in finding greater upward mobility of urban background youth than of those reared in rural areas, suggested that one reason may be the higher aspirations of urban youth.

There is some indication that rural youth are changing. Youmans, Grigsby, and King (1962) found that about half the 411 rural high school seniors in the study planned to continue education beyond high school, and a majority aspired to become professional workers. The difference between rural and urban youth is summarized:

> *With respect to social trends, the study indicates clearly that time-honored values and traditions are subject to change. Rural sociologists have been saying for 30 years or more that farm residents are becoming more and more like other people. The findings of this study indicate that this trend has at last been consummated in the state of Washington with respect to the level of educational aspirations and expectations of farm boys and girls* [*Slocum, 1966, p. 43*].

Family Size

Most of the studies of youths' aspirations in which family size has been controlled as a variable are in agreement that the smaller the size of the family, the higher are the youths' aspirations. Analysis of the family background of 1,424 college students led Landis (1952) to conclude that ". . . college attendance is far more often a privilege of the child from the small family than from the large family."

Stice, Mallenkopf, and Torgerson (1956) found that students from large families were less likely to be interested in college than those from small families. In a study of over 2,000 high school boys and girls from varying socioeconomic levels, Turner (1962) found that high ambition for education was associated with small family size.

A study of Southern youth (Southern Cooperative Series, 1965) found that a small family (two or fewer children), was associated with youths' more favorable attitudes toward the value of an education but not with actual plans for further education. Contrary to what had been expected, these research findings indicated that the degree of similarity between rural youths' educational and vocational plans and their parents' preferences for them showed no relationship to size of family. Family size as an independent variable in the educational and vocational aspirations of youth has received little attention. Furthermore, the few studies of Southern youth referred to above have failed to confirm the findings of other studies. For these reasons, further investigation of the relationship between family size and youths' aspirations is needed.

Summary

Researchers have found that parents strongly influence the occupational preferences of their children. Educational and vocational goals of boys differ from those of girls but recent research indicates fewer sex differences in plans to attend college than formerly. Girls more often preferred those vocations ascribed by tradition as being feminine.

A direct relationship has been found between LOL and both educational and vocational aspirations of youth. Similarly, researchers have found that larger percentages of high than low LOL youth plan and continue their formal education.

Urban youth generally have shown higher educational and vocational aspirations than rural youth. Several recent studies, however, have shown that rural youths' aspirations are becoming more and more similar to those held by urban youth.

Most of the studies of youths' aspirations in which family size has been a controlled variable were in agreement that the smaller size of the family the higher were the youths' aspirations. There were

indications that youth from small families valued education more than youths from large families; but, regarding actual educational and vocational plans, family size was not an influencing factor.

Findings

Introduction

The findings are presented in the following order. Reported first are the responses of the students and the parent-child discrepancies for the Hieronymous Attitude Toward Education Scale, then the findings from the educational and vocational questionnaire. Responses on this questionnaire fall into these categories: high school subjects considered important, expected length of schooling, plans—noncollege, degree of parental urging to continue education, financial help with schooling, desired and expected occupation, parental attitude toward occupational plans, and for boys, financial help with occupation. Some additional background effects are then noted. The final portion of this section reports the findings for the ten scales of the *Kuder Vocational Preference Record.* This order of presentation would seem to parallel the youths' decision making on their plans. Their attitudes toward education led to their education which, in turn, led to their occupational choices.

Hieronymous' Scale of Attitudes Toward Education

The Hieronymous scale scores were computed by the method of summated ratings. Students were asked whether they agreed, disagreed, or reacted in other ways with each of a list of 46 statements dealing with education in general and with schooling for themselves (appendix B). Scoring was on a five-point-per-item basis with a high score reflecting a positive evaluation of education. Scores could range from 46 to 230. The overall mean score for students was 181.6. This mean score averaged a value of 3.95 points per item where "strongly agree" has a value of five and "strongly disagree" a value of zero.

For students' scores there were two variables significantly related to educational scores. Girls placed a higher value on education than did boys. In addition to the sex difference there was also some variation in evaluation of education by LOL. The differences were slight, however. At the low LOL, the mean was 179.17, at the middle it rose to 182.41, and at the high it was 183.18. Neither background nor family size nor any interactions among the four factors appeared to be related to the education valuation score.

The comparison of parents' educational values for their children with those of the youth themselves may be seen in table 2. The parents hoped their children valued education more than, in fact, they

Table 2. Mean Scores and Parent-Child Discrepancies on Hieronymous Scale of Attitudes Toward Education

	Boys	Parent Minus Boy Discrepancy	Girls	Parent Minus Girl Discrepancy
Students	179.93		183.25	
Fathers	185.57	5.64	185.69	2.44
Mothers	188.47	8.54	188.29	5.03

did. Mothers were three points above fathers in mean scores with about the same difference prevailing between boys and girls. However, neither parent seemed to recognize a distinction between sons and daughters in their hopes. That is, parents hoped sons valued education as much as daughters. Among the parent discrepancies, father-minus-child scores, there was a background effect. The hopes of fathers were higher for their children when there was a nonrural background than in the rural background cases.

Educational and Vocational Plans

High School Subjects Considered

The high school subjects considered important were determined when the students were asked to check the high school subjects they thought important for their future. The most common responses (see appendix tables E1, E2, and E3) were English (particularly for the girls) and mathematics. Social science and biology were checked by over 40 percent of both sexes while girls often checked commercial course and boys physical education.

Subjects which varied according to level of living (LOL) were commercial course, home economics and industrial training, whose popularity was inverse to LOL. Biology, chemistry, foreign language, drama, art and journalism increased in number of choices from low to high LOL. The popularity of chemistry and physics was sensitive to the background difference. Only 32 percent of students with rural backgrounds checked these subjects as important while 45 percent of nonrural students checked these subjects.

Length of Schooling

The length of schooling expected by boys and girls is shown in table 3. As can be noted, more girls than boys planned to terminate formal education with high school graduation, while more boys than girls planned for college graduation and anticipated continuing professional study. By converting and then averaging the responses to a somewhat equivalent number of years of schooling, the boy-girl difference in plans appears to be about .7 of a year of schooling.

According to LOL, differences appeared in children's planned length of schooling as shown in table 4. A higher percentage of children in the low LOL group expected high school graduation to terminate their

Table 3. Planned Length of Schooling by Sex of Child

Responses (Years)	Boys No.	Boys %	Girls No.	Girls %
Last year (0)	3	1	3	1
Another year or two (1)	3	1	4	1
Finish high school (4)	109	24	161	34
Start college (6)	28	6	33	7
Graduate from college (8)	214	46	202	43
Professional study (11)	103	22	64	14
Totals	460	100	467	100
Means (Years)	7.50		6.78	

Table 4. Children's Planned Length of Schooling by LOL

Responses (Years)	LOL High No.	LOL High %	LOL Middle No.	LOL Middle %	LOL Low No.	LOL Low %
Last year (0)	0	0	3	1	3	1
Another year or two (1)	0	0	2	1	5	2
Finish high school (4)	29	9	84	27	157	53
Start college (6)	17	5	25	8	19	6
Graduate from college (8)	172	55	154	49	90	30
Professional study (11)	95	30	48	15	24	8
Totals	313	99	316	101	298	100
Means (Years)	8.43		7.11		5.81	

formal schooling, while a higher percentage of boys and girls in the high LOL group than in the middle or low LOL groups planned to graduate from college and continue professional study. The difference in years is about 2.6 over the low to high LOL range which is about three times the sex difference.

The fathers appeared to be in opposition to this trend of fewer years planned by the children in the lower LOL. Table 5 shows that the incidence of children who had plans for less schooling than their father's hoped for them increased from 15 percent in high LOL families to 26 percent in low LOL.

Table 5. Father-Child Agreement on Planned Length of Schooling by LOL

Type of Agreement	LOL High No.	LOL High %	LOL Middle No.	LOL Middle %	LOL Low No.	LOL Low %
Child's expectations greater	79	25	73	23	64	22
Identical response	186	59	178	56	155	52
Child's expectations less	48	15	65	21	79	26
Totals	313	99	316	100	298	100

Frequency of child-mother agreement was found to vary with sex by family size interaction. For boys, the larger the family the more boys disagreed with the mother's hopes for length of schooling. For girls, the larger the family the less was the disagreement with the mother's hopes. The data can be found in table 6.

Table 6. Mother-Child Agreement on Length of Schooling in Percentages by Sex and Family Size

Agreement	Boys		Girls	
	Small	Large	Small	Large
Child's expectations greater	20	29	24	24
Identical response	62	50	53	56
Child's expectations less	18	21	23	20

Another pattern of mother-child agreement was an interaction of LOL and background. The data appear in table 7. At low LOL, mother-child agreement among rural and nonrural subjects were similar, but between middle LOL and high LOL the difference between rural and nonrural reversed sharply. At the high LOL, it was the nonrural group where agreement was high, while at the middle LOL, it was the rural background group which gave more identical responses.

Table 7. Percentages of Three Levels of Mother-Child Agreement on Length of Schooling by LOL and Background

Agreement	High		Middle		Low	
	Rural	Nonrural	Rural	Nonrural	Rural	Nonrural
Child's expectations greater than mother's	26	23	21	27	26	21
Identical response	54	66	63	46	51	54
Child's expectations less than mother's	20	11	16	28	22	25
Totals	100	100	100	100	100	100

Noncollege Plans

The noncollege plans for those students who reported "not planning to go on to college" were ascertained by asking for their plans in lieu of college. Their responses can be seen in table 8. In both sexes 20 percent were undecided. Only 7 percent of the girls foresaw marriage immediately but 60 percent planned to take some kind of training course. Among the boys, 29 percent looked forward to military service.

The frequency of parental agreement with these noncollege plans was greater for girls than for boys as table 9 shows. The data do not show which response produced the difference but one would suspect the military service response to produce considerable disagreement.

Table 8. Numbers of Boys and Girls by Noncollege Plans

	Boys		Girls	
	No.	%	No.	%
Training course	35	31	99	60
Apprentice	13	12	8	5
Work immediately	4	4	11	7
Help father (boys)	5	4	0	0
Marriage (girls)	0	0	11	7
Military (boys)	33	29	0	0
Help my family at home (girls)	0	0	3	2
Undecided	23	20	33	20
Totals	113		165	

Table 9. Parents' Attitude to Children's Noncollege Plans by Sex of Student

	Boys Agree		Girls Agree	
	No.	%	No.	%
Fathers	25	22	68	41
Mothers	29	26	77	47
Totals	113		165	

Parental Urging

The degree of parental urging to continue education was determined for those students who said they planned to go to college. When they were asked about a course of study, it was found that, for boys, engineering attracted more than twice as many choices as the nearest competitor, commerce. For girls, education was highest with commerce and liberal arts, then fine arts and nursing—all above 10 percent, as shown in table 10.

Table 10. Students Planning on Going to College by Course of Study Chosen, by Sex of Student

	Boys		Girls		Total	
Course	No.	%	No.	%	No.	%
Agriculture	7	2	1	0	8	1
Commerce	42	12	46	15	88	13
Dentistry	9	3	0	0	9	1
Education	26	7	63	21	89	13
Engineering	111	31	0	0	111	17
Fine Arts	11	3	34	11	45	7
Home Economics	0	0	10	3	10	2
Law	29	8	6	2	35	5
Liberal Arts	13	4	47	15	60	9
Nursing	0	0	34	11	34	5
Pharmacy	4	1	3	1	7	1
Science	33	9	15	5	48	7
Pre-Med.	19	5	17	6	36	5
Religion	4	1	4	1	8	1
Veterinary	19	5	8	3	27	4
Other	31	9	19	6	50	8
Totals	358	100	307	100	665	99

Sex differences in children's perceptions of parental urging to continue education are shown in table 11. A considerably higher percentage of boys than girls perceived that their fathers as well as their

Table 11. Children's Perception of Parental Urging of Education by Sex of Student

Perception	Fathers Urging				Mothers Urging			
	Boys		Girls		Boys		Girls	
	No.	%	No.	%	No.	%	No.	%
Strongly urged	317	69	339	74	239	51	275	59
Some encouragement	77	17	76	16	134	29	129	28
Never said much	58	13	37	8	79	17	46	10
Work after high school	8	2	9	2	14	3	17	4
Totals	460	101	461	100	466	100	467	101

mothers had strongly encouraged them. This is consistent with the more frequent responses of boys than girls that they planned to go far in school as was noted above. It may also be noted that boys and girls perceived mothers as strongly urging them to a slightly greater extent than fathers.

Girls seemed to feel more parental urging than parents hoped they would perceive. This is shown in table 12 and is especially apparent

Table 12. Parent-Child Differences in Perception of Encouragement of Education by Sex of Child

Agreement	Father				Mother			
	Boys		Girls		Boys		Girls	
	No.	%	No.	%	No.	%	No.	%
Child's perceptions greater	92	20	130	28	83	18	116	25
Perceptions same	307	67	248	53	324	70	289	62
Child's perceptions less	61	13	88	19	54	12	62	13
Totals	460	100	466	100	461	100	467	100

with mother-child agreement. The amount of agreement with sons was 67 percent and 70 percent but for daughters this dropped to 53 percent and 62 percent. Girls planned less schooling than boys (table 3), they perceived more urging (table 11), but their parents hoped they did not perceive this extent of urging (table 12). These findings appear to be definitely related.

Youth of the high LOL reported stronger parental urging than those of low LOL (table 13). There were also found to be differences, as table 14 shows, in parent-child agreement on parental urging by LOL. Here as LOL decreased, the disagreement rather dramatically increased. This is true of both kinds of disagreement with child

Table 13. Percentage of Children by Their Perception of Parental Urging of Education by LOL

Perception	Father's Urging			Mother's Urging		
	High	Middle	Low	High	Middle	Low
Strongly urged	76	62	40	78	68	52
Some encouragement	14	25	30	14	22	30
Never said much	9	12	23	7	8	11
Work after high school	0	0	7	1	1	7
Totals	100	100	100	100	100	100
No. of Cases	313	315	298	313	316	299

Table 14. Percentages of Cases of Parent-Child Differences in Perception of Urging of Education by LOL

Agreement	Mother-Child			Father-Child		
	High	Middle	Low	High	Middle	Low
Child's expectations greater	16	22	26	15	24	33
Expectations same	76	66	56	72	60	47
Expectations less	8	12	18	13	16	20
Totals	100	100	100	100	100	100
No. of Cases	311	316	299	313	315	298

perceptions being under as well as above the parents' hopes. The cases where child's expectations were greater than the father's increased most rapidly as LOL decreased.

There was also found to be a decrease of agreement between mothers and their children from smaller to larger family size. Data is presented in table 15.

Table 15. Mother-Child Differences in Perception of Urging of Education by Family Size

Agreement	Larger		Smaller	
	No.	%	No.	%
Child's perceptions greater	114	24	85	18
Perceptions same	289	62	324	70
Child's perceptions less	65	14	51	11
Totals	468	100	460	99

Expected Financial Help

All four independent variables, sex, LOL, background and family size, influenced children's expectations of financial help with their schooling. Tables 16, 17, 18, and 19 show the patterns. Girls more often than boys expect complete support, yet the sexes were similar when the level of help was "some" or "none." The anticipated association of help and LOL was found, with the "pay completely" response accounting for 40 percent of the high LOL and only 18 percent of the

Table 16. Children's Expected Financial Help With Schooling by Sex of Child

Expectation	Boys		Girls	
	No.	%	No.	%
Pay completely	115	25	159	34
Help great deal	161	35	131	28
Some help	163	36	153	33
Give no help	13	3	15	3
Need help from child	6	1	6	1
Totals	458	100	464	99

Table 17. Children's Expected Financial Help with Schooling by LOL

Expectation	High		Middle		Low	
	No.	%	No.	%	No.	%
Pay completely	125	40	97	31	52	18
Help great deal	114	37	100	32	78	26
Some help	66	21	115	36	135	46
Give no help	4	1	3	1	21	7
Need help from child	2	1	1	0	9	3
Totals	311	100	316	100	295	100

Table 18. Children's Expected Financial Help with Schooling by Background

Expectation	Rural		Nonrural	
	No.	%	No.	%
Pay completely	105	24	169	34
Help great deal	131	30	161	33
Some help	169	39	147	30
Give no help	18	4	10	2
Need help from child	7	2	5	1
Totals	430	99	492	100

Table 19. Children's Expected Financial Help with Schooling by Family Size

Expectation	Small Family		Large Family	
	No.	%	No.	%
Pay completely	165	36	109	23
Help great deal	156	34	136	29
Some help	124	27	192	41
Give no help	10	2	18	4
Need help from child	2	0	10	2
Totals	457	99	465	99

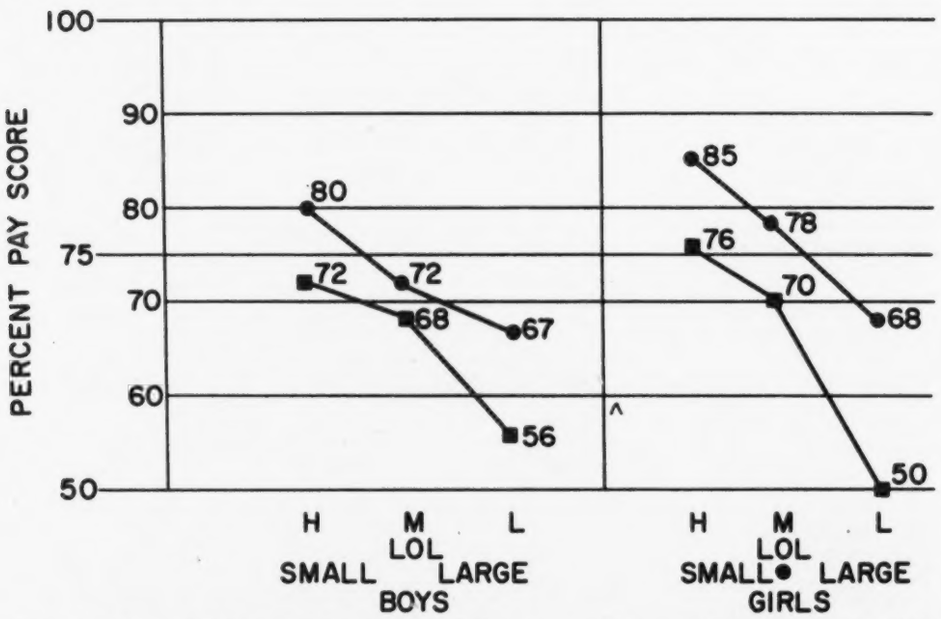

Fig. 1. Financial help with schooling showing an interaction of sex of child, LOL, and family size.

Percent Pay Score—100 if response was "pay completely"
75 if response was "help great deal"
50 if response was "give some help"
0 if response was "no help"

low LOL children. By background the nonrural group more often than the rural ones expected the parents to "pay completely." In small families the "pay completely" response came from 36 percent of the children while in larger families it was only 23 percent. Each of these four separate comparisons was made for children that were matched on the other three factors.

Besides the four main effects there was a pattern of a three-way interaction among sex, LOL, and size of family. The salient feature here was that the influence of a large family when LOL was low was particularly depressing to the expectations of girls. Figure 1 shows the pattern.

Although children of high LOL more often expected considerable help with schooling, their fathers also tended more often to hope they expected less help (table 20). Children of rural background less often expected help from parents; however, children with rural background were more often expecting more than their fathers hoped they expected (table 21). Figure 2 was designed to show a LOL by family size interaction effect for father-child discrepancies. Smaller families showed increasing disagreement from low to high LOL while large

Table 20. Fathers' Expected Financial Help With Schooling Beyond High School by LOL

Agreement	High		Middle		Low	
	No.	%	No.	%	No.	%
Child's expectations greater	95	30	82	26	71	24
Expectations same	156	50	139	44	132	45
Child's expectations less	60	19	95	30	92	31
Totals	311	100	316	100	295	100

Table 21. Fathers' Discrepancies with Children on Help With Schooling by Background

Agreement	Rural		Nonrural	
	No.	%	No.	%
Child's expectations greater	127	30	121	25
Expectations same	205	48	222	45
Child's expectations less	98	23	149	30
Totals	430		492	

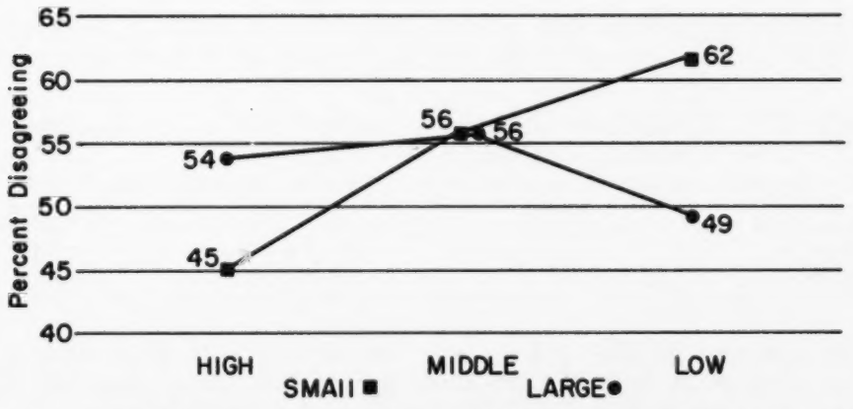

Fig. 2. Percent disagreement between children and fathers regarding financial help with schooling by LOL and family size.

families showed a somewhat decreasing amount of disagreement from high to low LOL. The extent of disagreement was the same at the middle level of living for both large and small families.

Desired Occupations

Children's desired occupations were significantly related to sex and LOL as table 22 shows. The desired occupations most frequently mentioned by both boys and girls were in the professional-technical category, with a higher percentage of boys than girls selecting this category. A higher percentage of girls than boys chose the clerical category as most desired.

Table 22. Percentages of Students for Desired Occupations by LOL and Sex of Child

Occupation	Boys			Girls			Total
	High	Middle	Low	High	Middle	Low	
Professional, technical	82	79	64	85	63	44	69.5
Farmers	1	1	0	1	0	0	.5
Managers, officials and proprietors	7	1	1	0	0	0	1.5
Clerical	2	3	2	9	26	34	12.8
Sales	1	1	4	1	2	1	1.8
Craftsmen, Foremen	6	11	25	0	1	1	7.2
Service workers	1	4	0	3	6	14	4.7
Other	0	0	4	1	2	6	2.0
Totals	100	100	100	100	100	100	100.0
No. of Cases	148	141	134	143	142	139	847

The professional-technical category again was mentioned most frequently by all LOL groups, with a higher percentage of children in the high than in the middle or low LOL groups selecting it as their desired occupation. The clerical, sales, and craftsmen categories showed a reversed pattern, being mentioned more frequently by children in the low LOL group.

Parents' agreement with desired occupation of children is shown in table 23. As the table indicates, the percentage of fathers and mothers

Table 23. Percentage Agreement with Parents' on Desired Occupation for Children by LOL

	High	Middle	Low
Fathers	63	68	48
Mothers	67	67	54

from high and middle LOL groups who agreed with their child's desired occupation was higher than for fathers from the low LOL group, where a higher percentage disagreed with children.

The occupations expected by these ninth and tenth grade subjects and their parents were similar to those most desired. For example, the proportion expecting "professional-technical" was .688 as compared with .695 who desired this occupation. If it is assumed that desired occupation is indicative of level of aspiration and expected occupation level of reality, this finding is surprising. Some degree of disparity might be expected to occur between levels, especially for children in the low LOL group. These children may have high aspirations as indicated by the fact that 54 percent of them selected as desired occupations the professional-technical category.

It might be expected that considerably fewer of these youth would select the professional-technical category as expected occupation. Such

was not the case in the present study as 51 percent of youth in the low LOL group selected this category as desired occupation. One would anticipate that recognition of educational limitations and scarcity of financial support could operate toward more realistic evaluations of expected goals among youth in the low LOL group. The disparity between desired and expected occupations was even less for youth from the high and middle LOL groups where the percentage choosing the professional-technical category varied by only 1 percentage point.

Children's perception of parents' attitude toward occupational plans by sex is shown in table 24. A large percentage of both boys and girls

Table 24. Children's Perception of Parents' Attitude Toward Occupation Plans by Sex

Perception of Attitude	Boys		Girls	
	No.	%	No.	%
Shooting too high	6	1	17	4
Good occupation	232	51	287	62
Try something different	27	6	24	5
Up to child	133	29	110	24
Never discussed it	60	13	25	5
Totals	458	100	463	100

reported that their parents considered their occupational choice a good one. A slightly higher percentage of boys than girls estimated that parents thought plans should be left to the child. A higher percentage of boys than girls reported that plans had never been discussed with parents.

When boys were asked for their expectations of financial help in starting their occupations considerable differences by background and by family size were noticed (tables 25 and 26). Boys of a rural background less often than those of a nonrural background expected the pay "all" and pay "most" levels. Likewise, those of large families more so than for those of smaller families expected lower levels of help in starting an occupation. The LOL effect, although not significant

Table 25. Boys' Estimates of Parental Financial Help for Occupation by Background

Expectation	Rural		Nonrural	
	No.	%	No.	%
Will give all	30	14	41	17
Will give most	47	22	92	38
Give some help	106	50	94	38
Give very little	18	8	13	5
Give no help	12	6	5	2
Totals	213	100	245	100

Table 26. Boys' Estimates of Parental Financial Help for Occupation by Family Size

Expectation	Small Family No.	Small Family %	Large Family No.	Large Family %
Will give all	39	18	32	14
Will give most	84	38	55	23
Give some help	76	34	124	52
Give very little	15	7	16	7
Give no help	8	4	9	4
Totals	222	100	236	100

by the chi-square test, was in the direction of more help expected by high LOL boys. This effect was significant by the Kendall tau coefficient test (table 30).

Additional Associations Between Vocational Questionnaire Items and Background

The following discussion relates to effects found significant by the Kendall tau statistic (see Statistical Analysis). Schooling plans showed a slight difference from rural to nonrural background as table 27

Table 27. Children's Planned Length of Schooling by Background

Responses (Years)	Rural No.	Rural %	Nonrural No.	Nonrural %
Last year (0)	3	1	3	1
Another year or two (1)	4	1	3	1
Finish high school (4)	138	32	132	27
Start college	25	6	36	7
Graduate college (8)	187	43	229	46
Professional study (11)	77	18	90	18
Totals	434	100	493	100
Means (years)	7.02		7.24	

indicates. For otherwise matched children the average schooling plans of youth with a rural background were one-fifth of a year less than those with nonrural backgrounds.

The youths' perceptions of their father's and mother's urging that they continue school varied by background. Youth with rural backgrounds saw less urging than those without this background. Although this effect was large enough to reject the null hypothesis of equality by background, it is, in fact, a rather slight difference. It was a smaller effect, as the mean values of table 28 show, than the amount by which mother exceeded fathers as "urgers."

Table 28. Children's Perception of their Mother's and their Father's Urging to Continue School by Background

Responses (Scores)	Father's Urging				Mother's Urging			
	Rural		Nonrural		Rural		Nonrural	
	No.	%	No.	%	No.	%	No.	%
Strongly urged (2)	247	57	309	63	277	64	337	68
Some encouragement (1)	105	24	106	22	99	23	106	22
Never said much (0)	73	17	64	13	47	11	36	7
Said to go to work (—1)	8	2	14	3	11	2	15	3
Totals	433	100	493	100	434	100	494	100
Average Urging Scores	1.36		1.45		1.49		1.55	

Table 29 indicates how background differences were associated with the youth's perception of their parents' attitudes to their occupational

Table 29. The Effect of Background on Youths' View of Parents' Attitudes to Their Occupational Plans

Responses	Rural		Nonrural	
	No.	%	No.	%
Shooting too high	7	2	16	3
Think it's good	234	54	285	58
Should try different	30	7	21	4
It's up to me	115	27	128	26
Never discussed	45	10	40	8
Totals	431	100	490	100

plans. The youth with the rural backgrounds felt more often that their parents would like them to change. However, they did *not* as often think their parents felt they were "shooting too high." Responses to this question are difficult to order and to interpret, but it seems that youth with rural backgrounds more often felt that their parents thought the occupation they had chosen was too optimistic.

Table 30 presents again the data on financial help with occupational plans by background but also includes the LOL effect and gives "per-

Table 30. Financial Help with Occupation Expected from Parents by Boys by Background and LOL

Expectation (Score)	High		Middle		Low	
	Rural	Nonrural	Rural	Nonrural	Rural	Nonrural
Will give all (100%)	12	15	10	16	8	10
Will give most (75%)	17	36	16	28	14	28
Will give some (50%)	32	27	33	38	41	29
Will give very little (25%)	4	6	7	1	7	6
Will give none (0%)	5	0	2	5	5	0
Totals	70	84	68	88	75	73
Average Scores	60%	68%	59%	64%	54%	64%

centage equivalent" scores for the levels of expected help. The scores are arbitrary but were chosen to represent roughly the parents' percentage share of initial expenses. From a nonrural to rural background about 8 percentage points of help are lost while each change in LOL category (from low to medium or from medium to high) represents a change of only about 3 percentage points. Looked at this way, the background effect was greater than the LOL effect. This was not the case for financial help with *schooling* as tables 17 and 18 showed.

In the area of financial help with schooling there arose a difference in agreement between parent and child that varies from rural to nonrural background. Table 31 indicates that children of rural back-

Table 31. Parent-Child Agreement on Financial Help for Schooling by Background and Sex of Parent

Comparison	Father-Child				Mother-Child			
	Rural		Nonrural		Rural		Nonrural	
	No.	%	No.	%	No.	%	No.	%
Child expects less than parent	127	29	121	25	103	24	107	22
They agree	205	48	222	45	217	50	241	49
Child expects more than parent	98	23	149	30	110	26	144	29
Totals	430	100	492	100	430	100	492	100

grounds tended to expect less help than the parent (particularly the father) indicated he wanted the child to expect. Boys and their fathers showed this same pattern of background effect on disagreement over financial help with starting the occupation (table 32).

Table 32. Boy-Father Agreement on Financial Help for Starting in an Occupation by Background

Comparison	Rural		Nonrural	
	No.	%	No.	%
Boy expects less than father	77	36	71	29
They agree	85	40	99	40
Boy expects more than father	51	24	75	31
Totals	213	100	245	100

Kuder Vocational Preference Record

The *Kuder Preference Record* was used to measure vocational interest. This instrument measures ten areas of vocational preference: outdoor, mechanical, computational, scientific, persuasive, artistic, literary, musical, social service, and clerical.

The *Kuder Vocational Preference Record* poses choices of three activities and the subject tells which he likes most and which least. An example on the test form is: "Collect autographs, Collect coins, Collect butterflies." Each choice makes a contribution to the vocational area score most consistent with it. These raw scores, the number of choices consistent with each of the ten vocational areas, were analyzed to show for what factors and combinations of factors differences in vocational preferences appear.

Before turning to an analysis of the raw scores it may be helpful to compare the equipartitioned sample of students with a "standard population" of boys and girls. The mean scores of the subjects were converted into percentile equivalents for this standard population by using a chart supplied by the test's authors (table 33). For example,

Table 33. Kuder Vocational Preference Record Mean Raw Scores by Subjects with Parent-Child Discrepancies and Percentile Equivalents for Standard Population

	Subjects Mean Scores				Standard Population Percentile Equivalents*	
	Boys	Girls	Father-Child	Mother-Child	Boys	Girls
Outdoor	42.74	31.02	+ .14	−3.57	38	52
Mechanical	40.30	21.46	+2.58	−2.76	34	47
Computational	26.99	22.38	+3.83	+3.01	64	54
Scientific	43.79	32.65	+1.11	−1.06	56	64
Persuasive	40.35	38.47	+ .08	−2.74	53	46
Artistic	27.16	30.39	−2.47	−1.09	57	59
Literary	17.98	20.25	+1.66	+2.08	55	54
Musical	13.30	15.72	− .30	+ .38	53	35
Social Ser.	39.55	52.17	−1.83	+1.01	60	64
Clerical	46.91	56.11	− .57	+4.03	57	44

*From Fig. 113 p. 538 of A. Anastasi *Psychological Testing* (2nd ed.), McMillan Co., 1961.

in the standard population, 38 percent of the boys scored below the outdoor mean score (42.74) made by the subjects in this study. Thus, the boys in this study were rather low on outdoor interest. However, it should be noted that the test was standardized about 15 to 20 years ago.

The percentile equivalents are shown graphically in figure 3. The subjects in this study had average scores above the 50th percentile of the norm group in all but two instances for boys and four for girls.

Parents were asked to select the activity they hoped their child most preferred and the activity they hoped he least preferred. Also in table 33 are shown the grand averages of parents' discrepancies with their children. They are in the same units of score points or choices consistent with the vocational area. Differences were computed by subtracting the child's score from that of his parents. The data showed that both parents hoped for more interest in computational

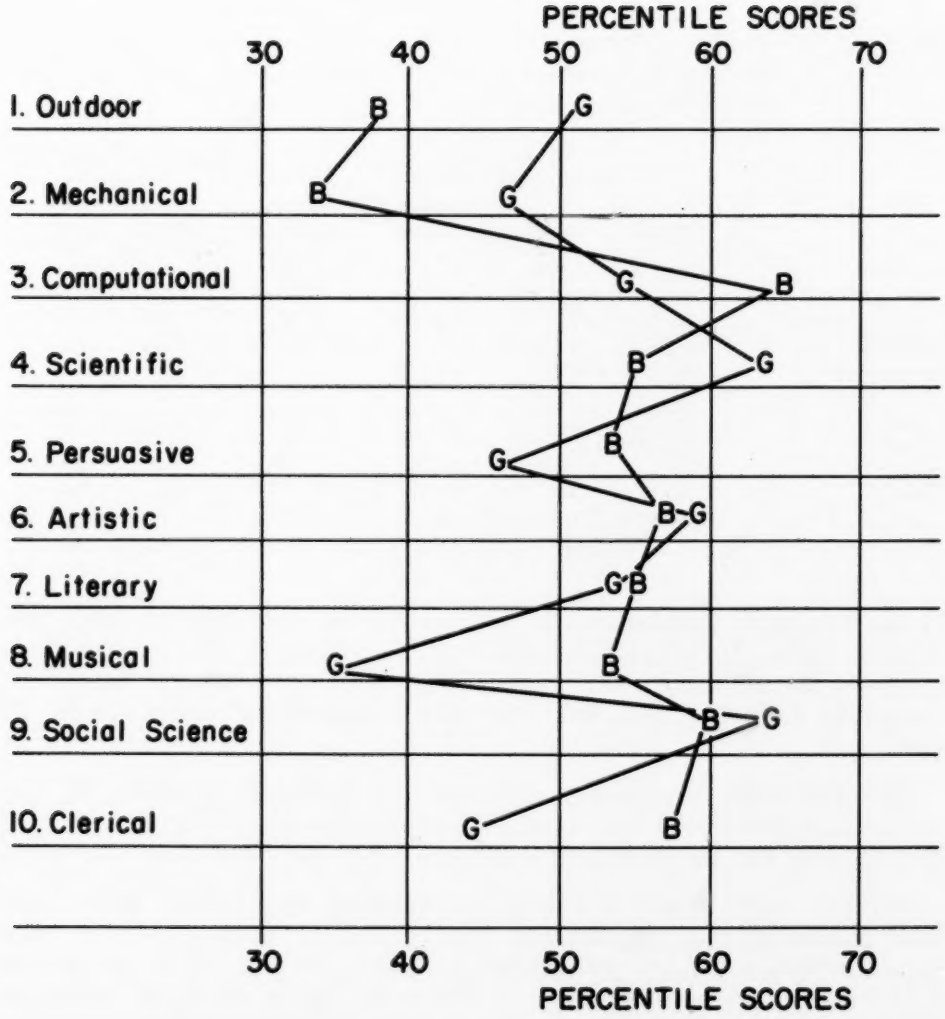

Fig. 3. Percentile equivalents of Kuder Vocational Preference mean score for boys (B) and girls (G).

and literary preferences than their children demonstrated, but hoped for less in the artistic area. In the other areas, the fathers go one way and the mothers another—usually in predictable directions. Fathers emphasized mechanical and scientific areas while mothers selected clerical and social service. Mothers aspired for less outdoor, mechanical, and persuasive interests than did their children.

A guide to the more detailed exploration of the pattern of change in vocational interest as one goes from one level to the next on all of the four factors can be found in table 34. The level of significance is shown at which the hypothesis of no difference may be rejected. For every entry in the table there will be a pair or a pattern of mean values to be examined.

Table 34 does not show the main effect by sex of child since all of these were significant, usually at the .05 percent level, and the means appear in table 33. These differences were consistent with the standard population and do not need special attention. Also the four 3-way and the one 4-way interaction effects are not shown in any of the tables. Out of the 120 3-way effects, eight were rejected at the .05 percent level. However, about this number (5 percent of 120 is six) would be expected by chance—when in truth no effects are present in the population. The fact that four of the eight rejections were for the sex by background by family size interaction is of some interest. That is, some patterns of vocational interest can probably be understood only by taking into account combinations of all three factors. The vocational interest areas can now be examined separately.

Outdoor interest was revealed through a preference for the type of work which kept the individual outside most of the time and a preference for interest items dealing with animals and growing things.

Students with a rural background averaged a score of 38.5 in the outdoor area while those with nonrural backgrounds made 35.3. This difference may be expected since outdoor experiences are more common to the rural youth than to the nonrural ones. Mothers whose children had rural backgrounds hoped, on the average, for 4.7 points less than the youth while mothers of nonrural children were only 2.4 points below their offspring. Thus mothers of the two groups ended up only about a score point apart in their hopes for their children's outdoor interest.

There were differences in outdoor interest by LOL, but the pattern for girls differed from that for boys as table 35 shows. Preference for outdoor interests was expressed by boys in the low and girls in the high levels of living. The gap between boys and girls thus was greatest in the low LOL and least in the high LOL. In general, parents' hopes were in the opposite direction.

Mechanical interest is indicated by a preference for working with machines and tools. Almost twice as often as girls, boys indicated a preference for this interest as table 36 shows. Parent discrepancies

Table 34. Significance Levels in Percents where the Null Hypothesis was Rejected upon Testing Ten Effects on Youth's, Mother-Child, and Father-Child Differences on Kuder Vocational Preference Scores

		Main Effects***				Interaction Effects***					
Scale	Variable*	S	L	B	F	SL	SB	SF	LB	LF	BF
1. Outdoor	Y	**		0.05		1.00					—
	F	0.50		—		0.05					—
	M	2.50		1.00		2.50					5.00
2. Mechanical	Y	**	2.50	5.00		5.00					
	F	0.50	—	—		0.50					
	M	0.05	—	—		—					
3. Computational	Y	**		0.50		0.05		5.00	5.00		
	F	0.05		—		—		—			
	M			0.10		—		—	2.50		
4. Scientific	Y	**	0.10				—			0.50	
	F	0.05	5.00				2.50			—	
	M	0.50	—				—			0.50	
5. Persuasive	Y	**								1.00	
	F	0.50								—	
	M	0.05								—	
6. Artistic	Y	**				0.50					
	F	—				—					
	M	—				—					
7. Literary	Y	**	1.00	—							
	F	—	—	—							
	M	—	—	1.00							
8. Musical	Y	**	1.00								
	F	—	—			2.50					
	M	—	—								
9. Social Service	Y	**				5.00				—	5.00
	F	0.05				—				5.00	—
	M	0.05				—				—	—
10. Clerical	Y	**	0.05	0.50		0.05					
	F	—	—	—		0.05					
	M	—	—	—		1.00					

*Y=Youth's scores
F=Father-child difference scores
M=Mother-child difference scores
**All Boy-Girl Differences were highly (.005) significant

Table 35. Outdoor Interest Scores by LOL and Sex for Children and Parent-Child Discrepancies

Level of Living	High		Middle		Low	
	Boys	Girls	Boys	Girls	Boys	Girls
Children	41.14	32.22	43.21	31.97	43.88	28.88
Father Discrepancy	1.79	— .45	—2.39	1.97	—3.91	3.80
Mother Discrepancy	—1.84	—3.12	—5.85	—3.47	—5.97	—1.19

Table 36. Mechanical Score Means for Boys, Girls, and Father-Child Discrepancy According to LOL

	LOL			Father-Child Discrepancy		
	High	Middle	Low	High	Middle	Low
Boys	37.64	41.00	42.26	2.52	.51	.47
Girls	21.29	21.44	21.64	.95	3.76	7.25

ran counter to this sex difference—fathers hoping for more mechanical interest from daughters; mothers, for less from their sons.

High LOL boys showed less mechanical preference than middle or low LOL boys. Girls' preferences were not influenced by their LOL as table 36 indicates. Fathers' discrepancies with their children were in opposite direction to this sex by LOL interaction. This can also be seen in table 36, and the notable pattern here is the large discrepancies between fathers and daughters in the low and middle LOL groups.

Students with rural backgrounds had somewhat higher mechanical interests than those without. The difference was a scant 1.4 points between 31.6 and 30.2 choices.

Computational interest represents a preference for working with numbers. Students from a nonrural background showed more interest in computational activities than did those with rural backgrounds, although this was only true for the high LOL and somewhat for the middle LOL (table 37). Mothers' discrepancies also showed a background main effect and a background by LOL interaction opposite the students' pattern. The high LOL mothers of nonrural students were very close to agreeing, in their hopes, to the childrens' actual scores, while low LOL mothers of nonrural children show discrepancies almost equal to mothers of rural background children.

Although boys were predictably higher in computational interest than girls, LOL and family size modified this sex difference. Table 37 suggests that, although computational interest rose with LOL among boys, it declined among girls. The other pattern was an increase in computational interest among girls as family size increased and a decrease among boys.

Table 37. Computational Interest Scores by Background and LOL for Students and Mother-Child Discrepancy Scores

LOL	Students		Mother Minus Child	
	Rural	Nonrural	Rural	Nonrural
High	22.38	25.50	+3.81	+ .22
Middle	24.00	25.95	+5.50	+2.02
Low	25.23	25.02	+3.14	+3.36
All	23.87	25.49	+4.15	+1.87

Summary and Conclusions

The study has looked at responses of 938 students to a series of questionnaire items concerning schooling plans, vocational plans, and vocational preferences. The parents of these students were asked to answer the same questions in the way they hoped their children would answer them. The study then examined the agreement between the child and parent responses. The pattern of examination was to compare levels of response of students as distinguished by four factors: background, sex, level of living, and family size.

That the responses were in fact made, were made honestly, and were counted accurately, the reader must judge from knowing the research competence and integrity of the study staff, his knowledge of ninth and tenth grade students' abilities and their willingness to answer such questionnaires, and the extent to which the results do not flatly contradict too many well established notions. On the latter count, it seems that the data were quite consistent with common sense expectations; perhaps enough so to ask if it is worthwhile to find out the obvious. The further question of how "meaningful" are the results or whether the questionnaire responses can be taken as indicative of behavior that needs to be predicted or conditions that need to be understood—this is the question to be answered now. The data to be explained are students' and parents' expectations. The practical importance of these data is how they relate to young of living is higher. It is not known the extent that the expectations expressed by the students in this study result in acts in accord with the expectations. It is assumed that they do. This presumes that the youth will not be influenced except in a random way until they are called upon to decide on schooling or make an occupational choice. This in no way implies that counseling programs, for example, cannot modify the situation. In fact, the data might help to pave the way for action programs in support of or against the apparent trends.

The rural background variable was made central in the study design for several reasons. It was considered important to find out whether there is such a thing as a "rural educational and vocational ideology", whether it is absorbed by children, and whether this background might be detrimental to the life chances of youth in the urban occupa-

tional world.

The boy-girl factor was introduced largely as a control variable to allow one to see the effects of the other variables separately for boys and girls. There is, however, some interest in the differences between boys and girls—a comparison of the observed direction and extent of differences with what might be expected.

The other two factors, level of living (LOL) and family size, are of dual interest. To some extent they act as control variables. That is, had they not been balanced one would never be sure that an observed difference by background was not brought about by an associated LOL effect. But, like rural background, these variables may also be subject to change in the future. Thus, it is important to know whether any educational and vocational plans are related to them and would thereby change.

One can be equally interested in learning how educational and vocational interests and ambitions are distributed among the population of ninth and tenth graders. Such persons as college registrars, high school counselors, personnel officers could be interested in knowing where certain vocational and educational interests are abundant and where they are lacking.

Some differences were evident between those youth with rural background and those with urban background. Either there was not much difference between the city and the country as far as educational and vocational goals are concerned, or the urban setting tended to erode the difference, or both. When the present sample of urban students was compared with rural youth in an earlier study (Southern Cooperative Series, 1965), the differences between the two samples paralleled the rural, nonrural differences within the present study.

As a whole the children from rural backgrounds more frequently held expectations for less education and less financial help from parents than those from urban backgrounds. They reported less parental urging to continue school and reported that parents left occupational plans up to them to a greater extent than did children of nonrural backgrounds. However, when asked for an evaluation of education there was no background difference among the students. Fathers valued education more than did their children. There was some difference in educational evaluation, however, in favor of nonrural fathers. Thus, it would seem that the rural background leads to somewhat less emphasis on education and presumably less concern with occupational advancement.

One of the notions about rural ideology is that parents should help youngsters to start farming. The reality may be that a child's withdrawal of labor is more noticeable in the rural setting while the child's withdrawal of dependency is more prominent in the urban setting. At any rate, the presence of a rural background is a signal for youth to expect quite a low level of financial support of education and occupation from parents.

The subject matter areas favored by rural background youth were outdoor and mechanical in nature with computational and clerical interests low. While differences were not large, the findings relative to choice of high school subjects considered important were consistent with these findings. Rural background youth chose mostly agriculture, home economics, industrial training, music, and physical education. The nonrural youth checked chemistry and physics, commercial, foreign language, math, and social science. Apparently, rural background youth may need help in recognizing the importance of the less concrete, more academic subjects. These differences point to the kinds of symbolism each background fosters—the verbal or other formal symbolism of the nonrural background as contrasted with the concrete and immediate symbols of the rural background.

On occupational plans there was little difference between the rural and nonrural youth although rather broad occupational categories were used in coding responses. Many chose "professional, technical and kindred" occupations.

Differences in educational and vocational plans by the sexes were usually very predictable. Girls chose subjects in the humanities and boys selected the sciences, including social science. The boys planned more advanced schooling than girls, although the girls experienced more parental urging to go on in school. Girls also valued education slightly more than boys. The girls, more often than boys, expected complete financial support in school. The girls, as frequently as boys, desired a professional or technical occupation when both offspring came from high LOL backgrounds. As LOL diminished girls turned to clerical and service jobs faster than boys moved into the craftsmen category. On the Kuder vocational preference scores the observed sex differences in all areas suggested that an internally produced sex segregation of occupations will persist for years to come.

The extent to which these differences between boys and girls arise from nature or nurture and how they are changing from year to year cannot be inferred from the data. It appears that more females are likely to remain longer in the labor force than at present. Thus, one can speculate that occupations congenial to humanistic interests will become more infiltrated by females than by males.

Differences by LOL were quite prominent. The probable association of the LOL measure to social and economic rank and the importance of this rank position in predicting educational and occupational goals may have been responsible for the differences in responses by LOL. The obvious effects are upon amounts of financial help expected by students; that is, financial help expected was greater in the higher than in the middle and lower LOL. Even parental urging was perceived differentially. The higher the LOL the more was detected the urging

toward higher educational and vocational goals. The effects of LOL on plans for schooling and for desired occupation were marked. These effects may be related to persons having the money for schooling. However, the distinctions by LOL extend to other seemingly nonmaterialistic, noneconomic areas of vocational interest.

If these students follow their interest, then the occupations involving clerical and mechanical interests will be staffed by persons of low and middle LOL backgrounds. On the other hand, the reserves of literary and musical interests are mainly in the higher LOL. This difference may be of more importance in the consumption patterns of the students as adults than in their occupational choices. These differences are also highly important to adults in possibly perpetuating through their children the differential in richness of symbolic environment that seems to parallel the LOL variable. That scientific interest was more associated with a higher LOL milieu seems to be consistent with a greater interest in use of words and other symbols by youth within middle and higher LOL backgrounds.

The family size variable showed a few effects in the area of expected financial help. With the larger families the expectations of financial help tended to drop. This was particularly true for the low LOL girls. Also there were differences in amount of parent-child agreement by family size. The larger the family, the higher the mother-child agreement on length of schooling, and the lower the agreement on the mother's urging of education, and perception of the mother's attitude toward occupational plans. These results suggest that children in large families may face the future realistically but may have difficulty understanding the wishes of their mother.

Much attention was paid to parent-child discrepancies in presenting the results but the usefulness of these data is open to question. These discrepancies tended to counteract effects found in the youth's scores. For example, if boys had higher scores than girls, then the parents were often found to be hoping for a less extreme difference between boys and girls. In other cases, it seems difficult to explain the patterns.

In conclusion, the study of urban youth in the Southeast supported other findings of the following effects of the variables studied:

1. There were differences between boys and girls in terms of educational and vocational goals.
2. The low LOL signaled low educational and vocational aspirations for youth.
3. There were some differences in expectations between youth of rural background and those of urban background. The study noted that rural-urban differences seemed to be decreasing.
4. Family size was a variable which evidenced an effect in terms of the reality of financial help that youth expected from their parents. The larger the family, the lower the youth's expectations.
5. There were discrepancies between parents and children in terms

of educational and vocational aspirations. The discrepancies did not form a pattern which could be described or explained.

The foregoing conclusions and the details of the findings reported herein were an effort to understand the milieu of today's urban youth and its relationship to their educational and vocational aspirations. School personnel, extension workers, parent educators, and other professionals working with youth and their parents can use the findings to help youth determine their own educational and vocational aspirations.

References

Bell, G. D. Processes in the formation of adolescents. *Social Forces*, December, 1963, *42*, 179-186.

Berdie, R. F. and Hood, A. B. Changing plans of high school graduates. *Personnel and Guidance Journal*, September, 1963, *42*, 43-46.

Bishop, C., Davis, B., Harper, L. J. and Payne, V. C. *Educational and vocational goals of rural youth in Virginia.* Bulletin 568. Blacksburg: Agricultural Experiment Station, Virginia Polytechnic Institute, 1964.

Burchinal, L. G. Differences in educational and occupational aspirations of farm, small-town, and city boys. *Rural Sociology*, June, 1961, *26*, 107-121.

Burchinal, L. G., and Jacobson, P. *Migration and adjustment of farm and non-farm families in Cedar Rapids, Iowa.* Regional Research Bulletin 516, Ames, Iowa: Iowa Agricultural Experiment Station, July, 1963.

Caro, F. G., and Pihlblad, C. T. Aspirations and expectations: A reexamination of the bases for social class differences in the occupational orientations of male high school students. *Sociology and Sociological Research*, July, 1965, *49*, 465-475.

Dipboye, W. J., and Anderson, W. F. The ordering of occupational values by high school freshmen and seniors. *Personnel and Guidance Journal*, 1959, *38*, 121-124.

Douvan, E., and Kaye, C. Motivational factors in college entrance. In: Nevitt Sanford (Ed.), *The American college.* New York: Wiley, 1962. Pp. 199-224.

Elder, G. H. Achievement orientations and career patterns of rural youth. *Sociology of Education*, Fall, 1963, *37*, 30-58.

Empey, L. J. Social class and occupational aspiration: A comparison of absolute and relative measure. *American Sociological Review*, December, 1956, *21*, 703-709.

Fleege, U. H., and Malone, H. J. Motivation in occupational choice among junior and senior high school students. *Journal of Educational Psychology*, 1964, *37*, 77-83.

Gough, H. G. A short social status inventory. *Journal of Educational Psychology*, January, 1949, *40*, 52-56.

Grigg, C. M., and Middleton, R. Community of orientation and occupational aspirations of ninth grade students. *Social Forces*, May, 1960, *38*, 303-308.

Hill, G. E., and Hole, R. M. Comparison of the vocational interests of tenth grade students with their parents' judgments of these interests. *Educational and Psychological Measurement*, Spring, 1958, *18*, 173-178.

Hollingshead, August de Belmont. *Elmtown's youth, the impact of social classes on adolescents.* New York: Wiley, 1949.

Kahl, J. A. Educational and occupational aspirations of "common man" boys. *Harvard Educational Review*, Summer, 1953, *23*, 186-203.

Kendall, M. G. *Rank Correlation Methods*, 3rd edition, New York: Hafner, 1962, p. 47, formula (3.18).

Kuder, G. F. *Kuder Preference Record, Vocational.* Chicago: Science Research Associates, Inc., 1960.

Landis, P. H. *Adolescence and youth; the process of maturing.* New York: McGraw-Hill, 1952.

Lee, B. L., and King, P. Vocational choices of ninth grade girls and their parents' occupational levels. *The Vocational Guidance Quarterly*, Spring, 1964, *12*, 163-167.

Lindstrom, D. E. Educational and vocational needs of rural youth: A pilot study. *Illinois Agricultural Economics*, July, 1964, 11-12.

Lipset, S. M., and Bendix, R. *Social mobility in industrial society.* Berkeley, California: University of California Press, 1959.

Mathews, R. G., and Drabick, L. S. *Reasons for selection of expected occupations by race and sex.* Educational Research Series, No. 7. Raleigh: Departments of Agricultural Education and Rural Sociology, North Carolina State University, 1965.

Montesano, N., and Geist, H. Differences in occupation choice between ninth and twelfth grade boys. *Personnel and Guidance Journal*, October, 1964, *43*, 150-154.

Morland, K. J. Educational and occupational aspirations of mill and town school children in a southern community. *Social Forces*, December, 1960, *39*, 169-175.

Parsons, T., and Bales, R. F. *Family socialization and interaction process.* Glencoe, Illinois: Free Press, 1955.

Schwarzweller, H. K. Values and occupational choice. *Social Forces*, December, 1960, *39*, 126-134.

Sewell, W. H. Community of residence and college plans. *American Sociological Review*, February, 1964, *29*, 24-38.

Slocum, W. L. Educational planning by high school seniors. *Journal of Educational Research*, April, 1958, 583-590.

Slocum, W. L. Some sociological aspects of occupational choice. *The American Journal of Economics and Sociology*, 1966, 139-147.

Slocum, W. L., and Empey, L. T. *Occupational planning by young women; a study of occupational experiences, aspirations, attitudes and plans of college and high school girls.* Bulletin 568. Pullman: Agricultural Experiment Station, State College of Washington, August, 1956.

Southern Cooperative Series. *Educational and vocational goals of rural youth in the South.* Bulletin 107. Raleigh: North Carolina Agricultural Experiment Station, September, 1965.

Sperry, I. V., and Kivett, V. R. *Educational and vocational goals of rural youth in North Carolina.* Technical Bulletin 163. Greensboro: Agricultural Experiment Station, University of North Carolina at Greensboro, November, 1964.

Steinke, B. K., and Kaczkowski, H. R. Parents influence the occupational choice of ninth grade girls. *Vocational Guidance Quarterly*, Winter, 1960, 101-103.

Stice, G., Mallenkopf, W. G., and Torgerson, W. S. *Background factory and college going plans among high aptitude public high school seniors.* Princeton, N. J.: Educational Testing Service, August, 1956, 117.

Super, D. E. *The psychology of careers.* New York: Harper and Row, 1957.

Tillery, D., Donovan, D., and Sherman, B. *Scope.* Center for Research and Development in Higher Education. Berkeley: University of California, 1966.

Turner, R. H. Some family determinants of ambitions. *Sociology and Social Research,* July, 1962, *46,* 397-411.

Youmans, G. F., Grigsby, S. E., and King, H. C. *After high school what . . .* Gainesville: Cooperative Extension Service, University of Florida; and USDA, 1962.

Appendix A

Gough's Home Index Scale

Student Information Sheet

1. Your name: _____
   (last) (first) (middle)
2. Address: _____
   (street) (house number) (city)
3. Your age: _____
4. Your grade: _____
5. Check one: Boy _____
   Girl _____

DO NOT WRITE IN THIS SPACE

B-G: _____ H-M-L-: _____

R-NR: _____ CT: _____

1-2-3+ _____

6. Do you live with both parents? Check one: Yes_____
   No_____
7. How many brothers do you have? _____

   How many sisters do you have? _____
8. If you have any brothers or sisters in the ninth or tenth grades list their names below.

   _____
9. Have you ever lived on a farm or in the open country with your parents? Check the appropriate answer.

   _____ No

   _____ Yes, but less than a full year.

   _____ Yes, and for about _____ years. (Please write in the number of years.)
10. Do you now live on a farm or in the open country?

    _____ No

    _____ Yes

PLEASE CHECK ONE:

Yes	No	
_____	_____	1. Is there a telephone in your house?
_____	_____	2. Do you have a bathtub and shower in your house? (Either combination or separate)
_____	_____	3. Is the bathroom used only by your family members? (Not shared by any other family)

Yes	No		
_____	_____	4.	Is your entire home heated by a central system (Furnace or electric system)?
_____	_____	5.	Does your home have air conditioning?
_____	_____	6.	Does your family have two or more passenger cars?
_____	_____	7.	Did your mother graduate from high school?
_____	_____	8.	Did your mother attend a college or university?
_____	_____	9.	Did your father graduate from high school?
_____	_____	10.	Did your father attend a college or university?
_____	_____	11.	Do you have a fireplace in your home?
_____	_____	12.	Do you have a piano or electric organ in your home?
_____	_____	13.	Does your family have any servants, such as a cook or maid? (At least 3 days a week)
_____	_____	14.	Does your family leave town every year for a vacation?
_____	_____	15.	Does your mother belong to any clubs, or organizations, such as study, art, civic clubs, or political clubs?
_____	_____	16.	Does your father belong to any civic, study, service, or political clubs, such as the Lions Club, Chamber of Commerce, etc.?
_____	_____	17.	Have you ever had private lessons in music, dancing, art, etc., outside of school?
_____	_____	18.	Do you have your own room at home?
_____	_____	19.	Does your family take a daily newspaper?
_____	_____	20.	Do you belong to any clubs where you have to pay dues?
_____	_____	21.	Does your family have a hi-fi or a stereo set?
_____	_____	22.	Approximately how many books does your family have?

Check one: _____00-99 _____100-400 _____500 or more

T. S. _____

Appendix B

Student Education Questionnaire

INSTRUCTIONS: Below are some statements of opinion about our educational system. You will agree with some of them and disagree with some of them. Do not spent much time on any item. If in doubt, mark the phrase which seems most nearly to express your present feeling about the statement. Work rapidly. Be sure to answer every item.

Remember, your answers cannot be wrong since there is no right or wrong answer. You are asked merely to give your honest opinion.

1. The law should be changed so that boys and girls would have to stay in school until they complete high school.

   A. Strongly Agree B. Agree C. Undecided
   D. Disagree E. Strongly Disagree

2. The farther a person goes in school, the better able he is to enjoy life.

   A. Strongly Agree B. Agree C. Undecided
   D. Disagree E. Strongly Disagree

3. A student who intends to be a farmer should not be required to take courses in English and social studies.

   A. Strongly Agree B. Agree C. Undecided
   D. Disagree E. Strongly Disagree

4. The most common way in which poor people raise their standard of living is through education.

   A. Strongly Agree B. Agree C. Undecided
   D. Disagree E. Strongly Disagree

5. The length of the school day should be cut down to allow more time for out-of-school work and recreation.

   A. Strongly Agree B. Agree C. Undecided
   D. Disagree E. Strongly Disagree

6. Two additional years of school should be added on to the high school to provide more training for anyone who wants it.

   A. Strongly Agree B. Agree C. Undecided
   D. Disagree E. Strongly Disagree

7. Parents should not make their children finish high school.

   A. Strongly Agree B. Agree C. Undecided
   D. Disagree E. Strongly Disagree

8. The school helps a person learn how to use his spare time to best advantage.

   A. Strongly Agree B. Agree C. Undecided
   D. Disagree E. Strongly Disagree

9. Parents should be allowed to keep their children out of school to work as often as they want.

A. Strongly Agree B. Agree C. Undecided
D. Disagree E. Strongly Disagree

10. In getting ahead in most jobs a man with a high school education has a big advantage over one who does not have one.

A. Strongly Agree B. Agree C. Undecided
D. Disagree E. Strongly Disagree

11. The things that are taught in school are completely out-of-date.

A. Strongly Agree B. Agree C. Undecided
D. Disagree E. Strongly Disagree

12. The great advances made by science in America are due largely to the great public education system we have.

A. Strongly Agree B. Agree C. Undecided
D. Disagree E. Strongly Disagree

13. The things a person learns in school are of great value in helping him keep in good health.

A. Strongly Agree B. Agree C. Undecided
D. Disagree E. Strongly Disagree

14. A high school education is of great value to a person in helping him decide for whom to vote in local, state, and national elections.

A. Strongly Agree B. Agree C. Undecided
D. Disagree E. Strongly Disagree

15. Students who plan to go to work in factories should be allowed to quit school as soon as they are able to find the kind of work they want.

A. Strongly Agree B. Agree C. Undecided
D. Disagree E. Strongly Disagree

16. Solution of the world's problems will come through education.

A. Strongly Agree B. Agree C. Undecided
D. Disagree E. Strongly Disagree

17. School training is of little help in meeting the problems of real life.

A. Strongly Agree B. Agree C. Undecided
D. Disagree E. Strongly Disagree

18. The school system is even more important than our natural resources in making our country great.

A. Strongly Agree B. Agree C. Undecided
D. Disagree E. Strongly Disagree

19. Except for vocational training, a high school education is of little value to students who plan to take laboring jobs in factories.

A. Strongly Agree B. Agree C. Undecided
D. Disagree E. Strongly Disagree

20. I would rather work than go to school, even if I didn't need the money.

A. Strongly Agree B. Agree C. Undecided
D. Disagree E. Strongly Disagree

21. The things I learn in school are a lot of junk and will not help me when I get out.

A. Strongly Agree B. Agree C. Undecided
D. Disagree E. Strongly Disagree

22. Going to high school helps a person learn how to choose wisely the things that he buys.

A. Strongly Agree B. Agree C. Undecided
D. Disagree E. Strongly Disagree

23. A high school education helps a person realize the value of good music and literature.

A. Strongly Agree B. Agree C. Undecided
D. Disagree E. Strongly Disagree

24. Employers pay too much attention to the amount of education a person has.

A. Strongly Agree B. Agree C. Undecided
D. Disagree E. Strongly Disagree

25. A young person can learn more working on a job than in high school.

A. Strongly Agree B. Agree C. Undecided
D. Disagree E. Strongly Disagree

26. In general, I like to associate with people who have a high school education better than those who do not have one.

A. Strongly Agree B. Agree C. Undecided
D. Disagree E. Strongly Disagree

27. If one's parents need him at home he shouldn't go to high school.

A. Strongly Agree B. Agree C. Undecided
D. Disagree E. Strongly Disagree

28. Since quite a few of our great men have had no high school education, it has little effect on future success.

A. Strongly Agree B. Agree C. Undecided
D. Disagree E. Strongly Disagree

29. High schools are a waste of the taxpayer's money.

A. Strongly Agree B. Agree C. Undecided
D. Disagree E. Strongly Disagree

30. The high school teachers use mostly old, useless information.

A. Strongly Agree B. Agree C. Undecided
D. Disagree E. Strongly Disagree

31. Additional taxes should be collected to pay the expenses of a college education for anyone who wants to go and has proven to be a capable student.

A. Strongly Agree B. Agree C. Undecided
D. Disagree E. Strongly Disagree

32. The most promising means of attaining fame and fortune is through education.

A. Strongly Agree B. Agree C. Undecided
D. Disagree E. Strongly Disagree

33. Without a good education it is practically impossible to lead a happy, well-balanced life.

A. Strongly Agree B. Agree C. Undecided
D. Disagree E. Strongly Disagree

Below are some questions about different things and some answers which have been given by other students. For each question, mark the answer with which you most closely agree. As before, it is your **opinion** that is asked for. Be sure to mark every item.

34. Which of the following best states what you think about the value of a high school education?

A. Going to high school is almost a necessity if a person is going to be able to solve his everyday problems well.
B. Going to high school is a big advantage but it is not necessary for being a success.
C. Going to high school is all right for some people but it would be a waste of time for many.
D. Only those people who make the very best grades in the elementary school should go to high school.
E. Going to high school is a waste of time for most people.

35. Which of the following do you think is the best statement about the amount of money that should be raised by taxes to pay for the expenses of running high schools? (Remember that you will be a taxpayer in a few years yourself.)

A. Schools should have at least twice as much money as they now have.
B. School taxes should be increased somewhat but only to hire better teachers.
C. Schools have about the right amount of money now.
D. Schools cost the taxpayer too much as it is—they should get along on less money by being careful how the money is spent.
E. Much of the money that goes to the school is pure waste; school expenses should be cut almost in half.

36. The main reason I am going to high school is:

A. I'm not old enough to quit.
B. My parents want me to finish high school.
C. Most of my friends are in school.
D. A high school education will help me get a better job.
E. A high school education is necessary for getting more out of life.

37. When you marry, how much education would you like for your wife or husband to have?

A. The less the better.
B. I wouldn't care one way or another.
C. About the same amount I expect to have.
D. At least a high school education.
E. At least a college education.

38. Do you feel that going to high school will help you to earn a living?

A. No help.
B. Little help.
C. A fair amount of help.
D. Considerable help.
E. Great help.

39. Are you interested in the things you do at school?

A. I think school is very interesting.
B. I thing school is fairly interesting.
C. I think school is not very interesting.
D. I think school is pretty boring and monotonous.
E. I think school is very boring and monotonous.

40. How much of the time do you enjoy being in school?

A. All the time.
B. Most of the time.
C. Fairly often.
D. Hardly ever.
E. Never.

41. If you had a lifetime income of all the money you could ever possibly need, which of the following would you choose to do?

A. Stop school right away and have a good time.
B. Hire a private teacher who would teach only what I wanted to know.
C. Go to school until graduation from high school.
D. Go to school until graduation from college.
E. Continue my education after college by attending the great universities of the world.

42. What is the **least** amount of money it would take to make you leave school **permanently**?

A. None—I would leave now if I had the chance.
B. $100
C. $1,000
D. $10,000
E. $1,000,000

43. How do you think your opinion of school compares with others of your age?

A. I like school much better than most of the students.
B. I like school somewhat better than most of the other students.
C. I like school about as well as most of the other students.
D. I dislike school more than most students do.
E. Very few students dislike school as much as I do.

44. Do you think an education helps a person get more enjoyment out of life?

A. The more education a person has the less satisfied he is with life.
B. Poorly educated people enjoy life just as much as well-educated people do.
C. The amount of education has little or no effect on enjoyment of life.
D. Well educated people seem to get more enjoyment out of life than do poorly educated people.
E. The more education a person has the better able he is to enjoy life.

45. Which of the following statements do you most agree with?

A. Most high school students would be better off if they quit high school and went to work.
B. About half the high school students would be better off if they quit school and went to work.
C. Quite a few high school students would be better off if they quit school and went to work.
D. Very few high school students would be better off at work.
E. Except in extreme cases, all students should be required to finish high school.

46. How well do you like school?

A. I like it very much.
B. I like it fairly well.
C. I don't care much one way or another.
D. I don't like school very much.
E. I don't like school at all.

Appendix C

Questionnaire for Measurement of Educational and Vocational Plans

Name _____
(Last) (First) (Middle)

STUDENT VOCATIONAL QUESTIONNAIRE FOR BOYS

INSTRUCTIONS: Read each question carefully. Then answer it according to the instructions given with the question itself.

1. How far do you expect to go in school?

_____This will probably be my last year
_____Another year or two
_____I intend to finish high school
_____I expect to start to college but probably won't finish
_____I expect to graduate from a four-year college
_____I expect to continue professional study after college graduation

2. Check the high school subjects you consider to be important for your future.

_____Agriculture
_____Biology
_____Chemistry and Physics
_____Commercial Courses (such as typing or accounting)
_____English
_____Foreign Language
_____Home Economics
_____Industrial Training
_____Mathematics
_____Social Science (such as history, government, economics)
_____Dramatics and Speech
_____Art
_____Music
_____Physical Education
_____Journalism

3. If you are not planning to attend college, what are your plans? Check one statement below that best fits your plans. (If you are planning to attend college, skip this question and go on to the next question.)

_____Take training courses before working (such as trade school, business college, evening vocational classes at high school, correspondence courses.)
_____Take apprentice or on-the-job training for skilled labor work.
_____Go to work immediately without further job training.
_____Help my father in his occupation or business.
_____Get the military service requirement out of the way before further planning.
_____Undecided.

(Girls)

_____Take training courses before working (such as beauty school, business college, practical nursing school, evening vocational classes at high school, correspondence courses).
_____Take apprentice or on-the-job training, such as for nursing aides, receptionist, etc.
_____Go to work immediately without further job training.
_____Marriage as soon as I leave school.
_____Help my family at home.
_____Undecided.

4. If you are planning to attend college, answer these questions: (If you answered No. 3, do not answer this question.)

a. What college will you attend? _____
(Name of College)

_____
(Undecided)

b. What course of study do you plan to follow in college? (Check one.)

_____Agriculture
_____Business Administration
_____Dentistry
_____Education
_____Engineering
_____Fine Arts
_____Home Economics
_____Law
_____Liberal Arts (social science, language, etc.)
_____Nursing
_____Pharmacy
_____Physical or Biological Science
_____Medicine
_____Religion
_____Veterinary Medicine
_____Other (write in)

5. As to continuing my education beyond high school, my father: (Check one.)

_____Has strongly urged me to continue.
_____Has given me some encouragement to continue.
_____Has never said much about it.
_____Feels that I would be better off going to work after high school.
_____Feels that I should quit high school and go to work.

6. As to continuing my education beyond high school, my mother: (Check one.)

_____Has strongly urged me to continue.
_____Has given me some encouragement to continue.
_____Has never said much about it.
_____Feels that I would be better off going to work after high school.
_____Feels that I should quit high school and go to work.

7. As to any further help from my folks in getting a start or in continuing schooling after high school, my parents would be: (Check one.)

_____Willing to pay my way completely.
_____Financially able to help me a great deal.
_____Financially able to give me some help.
_____Financially able to give me no help.
_____Would need financial support from me while I am in college.

8. The occupation I would like most is:

_____

9. What do you actually expect to do as a lifetime kind of work? (Be specific as to what occupation you actually plan to follow.)

_____

(Girls)

What do you actually expect to do?

_____Occupation only
_____Occupation and Marriage
_____Marriage only
_____ Name of occupation, if checked above.

10. What do your parents think of your present occupational plans? **(Check one.)**

_____Think I am shooting too high.
_____Think it's a good occupation and I have a chance of making it.
_____Think I should be trying for something different.
_____They say it's entirely up to me to get what I want.
_____I have never discussed it with them.

11. In getting a start in the occupation I have my parents: **(Check one.)**

_____Will give me all the financial help I need.
_____Will give me most of the financial help I need.
_____Will give me some of the financial help I need.
_____Will give me very little financial help.
_____Will give me no financial help at all.

(Girls)

12. My father's opinion is that: **(Check one)**

_____Girls should expect to marry rather than prepare for an occupation.
_____A girl needs little preparation for an occupation because she will work, at most, only a few years before marrying.
_____A girl today should be prepared for both an occupation and marriage.
_____Marriage and homemaking are not a full time occupation for women except when the children are small.
_____A girl needs preparation for an occupation, but not for marriage.

13. My mother's opinion is that: **(Check one)**

_____Girls should expect to marry rather than prepare for an occupation.
_____A girl needs little preparation for an occupation because she will work, at most, only a few years before marrying.
_____A girl today should be prepared for both an occupation and marriage.
_____Marriage and homemaking are not a full time occupation for women except when the children are small.
_____A girl needs preparation for an occupation, but not for marriage.

Appendix D

Parent Information Sheet

1. Does your son or daughter live with you and your husband (wife)?

   _____Yes _____No

2. What was your age on your last birthday? _____Father

   _____Mother

3. Check highest number of years of schooling completed:

Father	Mother
_____0-5	_____0-5
_____6-8	_____6-8
_____8-11	_____8-11
_____Completed High School	_____Completed High School
_____Technical or Vocational School	_____Technical or Vocational School
_____Some College	_____Some College
_____Completed College	_____Completed College
_____Graduate Study	_____Graduate Study

4. What do you consider your principal occupation?

   Father_____ Mother_____

5. Are you engaged in any other occupations at the present time?

Father	Mother
_____Yes	_____Yes
_____No	_____No

Appendix E

Table E1. Numbers of Boys and Girls that Mentioned High School Subjects as Important for Their Future

Subjects	Percentage Base N—461 Boys No.	%	N—467 Girls No.	%
Agriculture	41	8	6	1
Biology	195	42	203	43
Chemistry and Physics	209	45	123	26
Commercial	107	23	229	49
English	366	79	398	85
Foreign Language	133	29	167	36
Home Economics	10	2	168	36
Industrial Training	131	28	13	3
Mathematics	373	81	300	64
Social Science	226	49	212	45
Drama, Speech	47	10	89	19
Art	34	7	62	13
Music	41	8	88	19
Physical Education	209	45	110	24
Journalism	39	8	62	13

Table E2. Number of Children in LOL Groups that Mentioned High School Subjects as Important for Their Future

Subjects	Percentage Base N—313 High No.	%	N—316 Middle No.	%	N—299 Low No.	%
Agriculture	14	4	14	4	19	6
Biology	150	48	133	42	115	38
Chemistry and Physics	136	43	121	38	75	25
Commercial	96	31	122	39	118	39
English	262	84	260	82	242	81
Foreign Language	129	41	111	35	60	20
Home Economics	50	16	58	18	70	23
Industrial Training	34	11	36	11	74	25
Mathematics	225	72	243	77	205	69
Social Science	167	54	139	44	132	44
Drama, Speech	66	21	45	14	25	8
Art	42	13	29	9	25	8
Music	54	17	44	14	31	10
Physical Education	103	33	108	34	108	36
Journalism	46	15	33	10	22	7

Table E3. Numbers of Children in Background Groups that Mentioned High School Subjects as Important for Their Future

Subjects	Percentage Base N—434 Rural No.	%	N—494 Nonrural No.	%
Agriculture	31	7	16	3
Biology	182	42	216	43
Chemistry and Physics	138	32	194	45
Commercial	160	37	176	41
English	355	82	409	83
Foreign Language	122	28	178	36
Home Economics	99	23	79	16
Industrial Training	79	18	65	13
Mathematics	301	69	372	75
Social Science	196	45	242	50
Drama, Speech	68	16	68	14
Art	47	11	49	10
Music	69	16	60	12
Physical Education	162	37	157	32
Journalism	50	12	51	10